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THREE NEW RACES OF VESPERTILIONID  
BATS FROM CALIFORNIA

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(Contribution from the Museum of Vertebrate Zoology of the University of California)

During the past six years there has been accumulated in the Museum of Vertebrate Zoology a collection of eight hundred and thirteen specimens of bats from within the boundaries of California. Although material is still lacking from many important localities within the state, there is now at hand in several instances a sufficient number of specimens to show clearly the existence of certain hitherto unnamed races. Three of these new races are described below. In these descriptions all measurements are given in millimeters; total length, tail vertebrae and foot measured in the flesh by the collector. Color descriptions are based upon Ridgway's *Color Standards and Nomenclature* (1912).

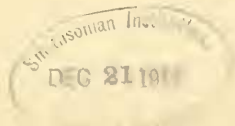
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***Myotis californicus quercinus***, new subspecies

Oak Foliage Bat

*Type*.—Female, adult; no. 6939, Mus. Vert. Zool.; Seven Oaks, 5000 feet altitude, San Bernardino Mountains, San Bernardino County, California; July 8, 1905; collected by J. Grinnell; original no. 1120.

*Diagnosis*.—Similar to *Myotis californicus californicus* (Audubon and Bachman) and *Myotis californicus pallidus* Stephens, but intermediate in color between these two forms. Prevailing tone of color on back, cinnamon.



*Description.*—Ears, feet and fur as in *M. c. californicus*. Membranes and bases of hairs everywhere as in *californicus*. On the back the terminal portions of the fur are glossy cinnamon, and this color extends down onto the sides. The terminal portions of the hairs below are light buff in color, rather than buffy-brown as in *californicus*, or pale cartridge-buff as in *pallidus*.

*Measurements.*—A series of ten examples of *M. c. quercinus* from southern California averages in millimeters as follows: Total length, 81.6 (77.0–83.0); tail vertebrae, 36.8 (31.0–41.0); tibia, 14.1 (12.5–15.0); foot, 6.0 (4.0–8.0); forearm, 31.9 (31.0–33.2); greatest length of eranium, 13.1 (12.9–13.8); zygomatic breadth, 7.7 (7.4–8.0); breadth of braincase, 6.8 (6.6–7.0); interorbital constriction, 3.0 (2.9–3.3).

*Specimens examined.*—The writer has examined twenty-two specimens of *Myotis californicus quercinus* from the following localities in California: San Diego County—Cuyamaca, 2, Julian, 5; Santa Cruz Island—Friar's Harbor, 3; San Bernardino Mountains, San Bernardino County—Seven Oaks, 2, Bear Lake, 1, South Fork Santa Ana River, 2; San Jacinto Mountains, Riverside County—Kenworthy, 1, Schain's Ranch, 1; Tulare County—Trout Creek, 2; Ventura County—Matilija, 1, Mount Pinos, 2.

*Remarks.*—The three specimens listed from Santa Cruz Island, while slightly darker than typical *quercinus*, are still nearer to this form than to *M. c. californicus*.

*Distribution.*—The range of *M. c. quercinus*, as so far worked out, occupies portions of the San Diegan faunal division of southern California, and the Santa Barbara Islands. The life-zone is high Upper Sonoran and low Transition. The bats appear at late twilight and are usually observed flitting close about the foliage of scrub, golden, and black oaks.

### *Myotis yumanensis sociabilis*, new subspecies

#### Tejon Bat

*Type.*—Female, adult; no. 5158, Mus. Vert. Zool.; Old Fort Tejon, 3200 feet altitude, Kern County, California; July 23, 1904; collected by J. Grinnell; original no. 715.

*Diagnosis.*—Similar in general characters to *Myotis yumanensis yumanensis* (H. Allen) and *Myotis yumanensis saturatus* Miller, but intermediate in color between these two forms.

*Description.*—The fur is distributed as in topotypes of *M. y. yumaensis*. On middle of back it averages about six millimeters in length. Hairs everywhere clove brown at base; distal half of fur on dorsal surface wood brown; fur below light buff, with darker bases of hairs showing through. On throat, sides and chin the color varies toward warm buff; ears olive brown; feet, wings and tail-membranes clove brown. The young are darker and grayer throughout, entirely lacking the buffy tint of the adults.

*Measurements.*—A series of five adult males of *M. y. sociabilis* averages in millimeters as follows: Total length, 81.4 (75.0–87.0); tail vertebrae, 33.3 (30.0–37.0); tibia, 15.2 (15.0–16.0); foot, 8.1 (7.0–10.0); forearm, 34.6 (32.9–35.3); greatest length of cranium, 13.7 (13.5–14.4); zygomatic breadth, 8.4 (8.0–8.6); breadth of braincase, 7.1 (6.7–7.6); interorbital constriction, 3.8 (3.5–3.9).

Ten adult females from Old Fort Tejon, Kern County, average in millimeters as follows: Total length, 81.9 (76.0–85.0); tail vertebrae, 36.6 (34.0–37.0); tibia, 14.7 (13.5–16.0); foot, 8.9 (8.0–10.0); forearm, 34.2 (33.7–35.0); greatest length of cranium, 13.8 (13.4–14.2); zygomatic breadth, 8.1 (7.8–8.3); breadth of braincase, 7.2 (6.7–7.3); interorbital constriction, 3.7 (3.6–4.0).

*Specimens examined.*—Total number sixty-nine, from the following localities in California: Butte County—Chambers Ravine, four miles north of Oroville, 1; Glenn County—Winslow, five miles west of Fruto, 1; Kern County—Old Fort Tejon, 61, Buttonwillow, 1 (Calif. Acad. Sci.); San Bernardino County—Bluff Lake, 7500 feet altitude, 3, Bear Lake, 6700 feet altitude, 1, South Fork Santa Ana River, 8500 feet altitude, 1.

*Remarks.*—Specimens of *M. y. sociabilis* from the San Bernardino Mountains show strong superficial resemblance to the smaller individuals among a series of *Myotis longicrus* (True) from the same locality. The longer tibia of the latter species, however, together with the slightly greater size of skull and the more elevated occipital region, serves to allocate individuals.

*Distribution.*—The distribution of this bat cannot be stated with confidence without much further field-work. It appears to occupy an intermediate geographic position between that of *M. y. yumaensis* and *M. y. saturatus*, namely the semi-arid Transition and Sonoran zones in California west and north of the southeastern deserts.

**Corynorhinus macrotis intermedius**, new subspecies

## Intermediate Lump-nosed Bat

*Type*.—Female, adult; no. 7753, Mus. Vert. Zool.; Auburn, 1300 feet altitude, Placer County, California; July 31, 1909; collected by Dr. J. C. Hawver; original no. 2387, J. Grinnell.

*Diagnosis*.—Similar in general characters to *Corynorhinus macrotis pallescens* Miller and *Corynorhinus macrotis townsendi* (Cooper), but intermediate in color between these two forms.

*Description*.—As compared with *pallescens*, *intermedius* is somewhat larger in general size; ten examples of the latter form from Auburn, Placer County, average 102 millimeters in length, while ten specimens of *pallescens* from the San Jacinto region average but 97.2 in the same dimension. In color *intermedius* is natal brown above; below, wood brown; membranes bone brown.

*Measurements*.—A series of ten specimens from west central California averages in millimeters as follows: Total length, 102 (97.0–108.0); tail vertebrae, 48.6 (45.0–55.5); tibia, 19.7 (18.7–21.0); foot, 9.8 (9.0–12.5); forearm, 42.0 (40.2–43.6); greatest length of skull, 16.2 (15.4–17.1).

*Specimens examined*.—Total number, thirty-two, from the following localities in California: Placer County—Auburn, 23, Pioneer Cave, 3; Santa Catalina Island—Johnson Harbor, 1; Napa or Sonoma County—Mount Veeder, 1 (U. S. Biol. Surv.); Siskiyou County—Happy Camp, 1 (U. S. Biol. Surv.); San Benito County—Bear Valley, 2 (U. S. Biol. Surv.), Hernandez, 1 (Calif. Acad. Sci.).

*Distribution*.—The evidence at hand indicates that this bat occupies a geographic position intermediate between that of *pallescens* and that of *townsendi*, namely the semi-arid and semi-humid portions of the Upper Sonoran zone in California west of the desert divides.

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